Da Vinci eMAIL for DOS
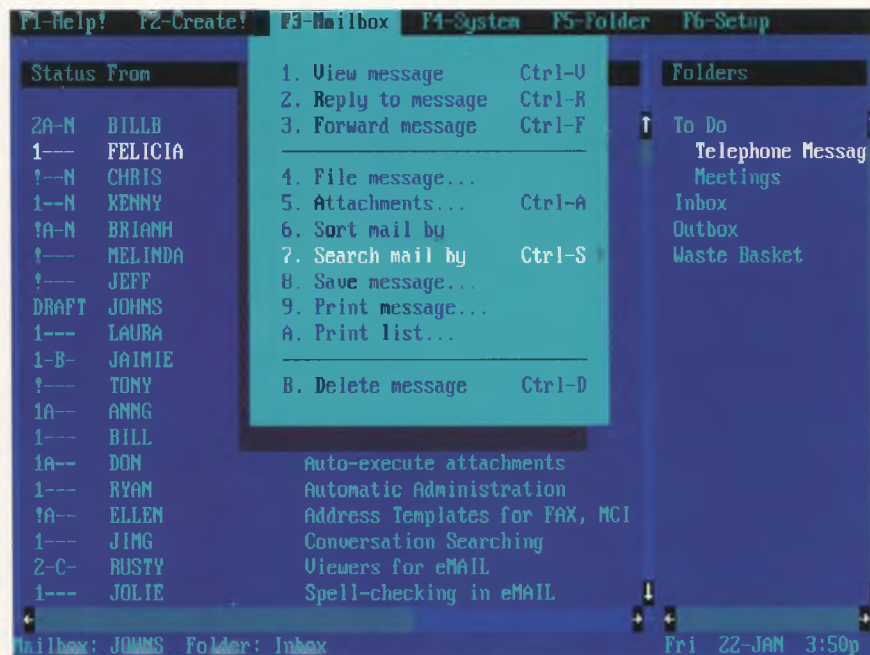
DA VINCI eMAIL

Choosing a product that is easy to learn and use is a key factor in the success of an electronic mail installation. Since everyone in an organization will be using E-Mail, it must be easy enough to accommodate the computer novice as well as the power-user.

As E-Mail becomes more vital to an organization, it is important that it offers the power to continue to be a productive tool. Da Vinci eMAIL 2.0 for DOS provides a comprehensive electronic mail solution simple enough for the novice, with the features power users demand.

```
F1-Help!   F2-Create!   F3-Mailbox   F4-System   F5-Folder   F6-Setup

 Status From            1. View message      Ctrl-V        Folders
                        2. Reply to message  Ctrl-R
 ZA-N   BILLB           3. Forward message   Ctrl-F     ↑ To Do                    ↑
 1---   FELICIA                                            Telephone Messag
 !--N   CHRIS           4. File message...                 Meetings
 1--N   KENNY           5. Attachments...    Ctrl-A        Inbox
 !A-N   BRIANH          6. Sort mail by                    Outbox
 !---   MELINDA         7. Search mail by    Ctrl-S        Waste Basket
 !---   JEFF            8. Save message...
 DRAFT  JOHNS           9. Print message...
 1---   LAURA           A. Print list...
 1-B-   JAIMIE
 !---   TONY            B. Delete message    Ctrl-D
 1A--   ANNG
 1---   BILL
 1A--   DON             Auto-execute attachments
 1---   RYAN            Automatic Administration
 !A--   ELLEN           Address Templates for FAX, MCI
 1---   JIMG            Conversation Searching
 2-C-   RUSTY           Viewers for eMAIL
 1---   JOLIE           Spell-checking in eMAIL            ↓
←                                                       ↓  ↓
 Mailbox: JOHNS  Folder: Inbox                   Fri  22-JAN  3:50p
```

Easy to Learn and Use

Da Vinci Systems has applied the lessons learned from many years of developing Windows applications to create an interface that, in the words of PC Computing, "demonstrates once and for all that, despite the evidence provided by almost all of its competitors, electronic mail doesn't have to be difficult to use." Da Vinci eMAIL is run by a simple, proven combination of pull-down menus, pop-up windows, and optional mouse support. Additionally, "Accelerator" keys let power users perform most functions with a single keystroke.

Always Available

With the touch of a user-defined "hot key" sequence, an eMAIL user can pop-up eMAIL and write a quick message, optionally attach DOS files to that message, and then send the message to another user or group. The recipient is alerted by a pop-up window or tone that he is receiving a new message, and can use eMAIL to view the message. Since Da Vinci eMAIL is available as a 3K TSR, the sender or the recipient can pop up eMAIL over any application they are currently using and perform any eMAIL functions.

Native MHS Compatibility

Novell's NetWare MHS has become the de facto standard for moving mail between LANs and organizations. While other products require expensive gateways to use MHS, Da Vinci eMAIL talks directly to MHS, with no gateway required. Through MHS, Da Vinci eMAIL can connect to systems like PROFS, MCI Mail, ALL-In-One, and SMTP as well as fax machines and "groupware" products. Non-NetWare and standalone versions of MHS are also available.

File Folders

File folders are a simple, straightforward way of managing your messages so that you can always find the information you need quickly and easily. Much like how DOS directories are a versatile way of organizing files, a system of folders and sub-folders can be created by Da Vinci eMAIL to store messages. A sophisticated database allows a message to be stored in any number of folders while only actually keeping one copy of the message. In addition, eMAIL can be configured to automatically file certain types of messages in the folders you specify.

Conversation Searching

Cryptic replies like "I agree" or "OK" are common in electronic mail, so it is important to be able to look at the message that is being replied to. Da Vinci eMAIL has the unique ability to search for all the replies to a certain message. Users can view the previous or next message in an eMAIL "conversation" with a single keystroke. An entire conversation can also be filed, printed, or deleted with this feature.

Spell-Checking

Da Vinci eMAIL is the first LAN-based electronic mail product to incorporate spell-checking so you never have to worry about sending out a message with misspellings or typos. Electronic mail has evolved to the point that many corporations send all employee notifications, internal correspondence, and even external communications via E-mail. This evolution has made spell-checking as critical to E-mail as it is to a word processor. Da Vinci eMAIL's dictionary even lets you add words, so that commonly accepted acronyms or company jargon become part of its vocabulary.

Send and View Attached Files

Da Vinci eMAIL 2.0 allows users to attach any number of files of every type - spreadsheets, graphics, documents, etc. The recipient can then extract attachments to files or view the attachments directly from within eMAIL. For example, if you receive a message with a WordPerfect file attached to it, you can examine that document without having to exit eMAIL and run another application. Viewers for text, Excel. Lotus 1-2-3, WordPerfect and FAX images are included with Da Vinci eMAIL, and viewers for virtually any other application can be created with a kit available from Da Vinci Systems.

Automatic Administration for NetWare LANs

During installation, Da Vinci eMAIL scans the NetWare Bindery for user names and automatically creates eMAIL accounts for all users found. As users are added and deleted from NetWare, eMAIL automatically reflects these changes in its user directory.

Open Architecture

Da Vinci eMAIL offers a rich set of Applications Programming Interfaces (APIs) for customization and the development of third party gateways. The Da Vinci eMAIL developer's kit (sold separately) provides interfaces for directly accessing eMAIL's transmission, storage, and directory services. These routines can even be used to interface Da Vinci eMAIL to other databases for data storage or directory services. Da Vinci eMAIL's open architecture ensures that storage and services can be extended to meet any customer requirements.

Other Products from Da Vinci Systems

- Da Vinci eMAIL Remote
- Da Vinci eMAIL for Windows
- Da Vinci eMAIL for OS/2
- Da Vinci eMAIL for NewWave
- Da Vinci Names Services
- Da Vinci Names Services Remote
- Da Vinci SMTP Gateway

Some eMAIL 2.0 Features:

Security

- Uses Novell passwords and security where available.
- All messages are stored in encrypted form.
- Users can specify a password for a specific message that receivers must know to read it.
- Messages can be stored in private network directories or on local hard disks.

On-Line Help

- The hypertext-based help system is completely context-sensitive so that you get help on what you're doing, while you're doing it. Help is available on all functions and error messages.

Wastebasket Folder

- Deleted messages are temporarily stored in a Wastebasket file folder before being purged. Accidentally deleted messages can be recovered from this folder.

Address Templates

- Multi-field "templates" can be defined for gateways to other systems to simplify addressing.

Personal and Public Directories

- Public user directories contain Full Name, eMAIL Route, Company Name, and other information.
- Users can build their own private directories.
- Da Vinci Names Services (sold separately) synchronizes directory information between eMAIL sites.

Mailing Lists

- Mailing lists of any number of users can be built by the system administrator as well as individual users.

Standard Mailing options

- Carbon Copies and "Blind Carbon Copies"
- Certified Mail (sends a notification to the sender when the receiver reads the message)
- 1st, 2nd, and Priority Class Mail
- Expiration Date
- "Reply By" option
- eMAIL supports postscript and non-postscript printers.

System Specifications and Hardware Requirements

Hardware
- Display: MDA, Hercules, CGA, EGA, VGA, 8514, & compatibles
- CPU: Any IBM Personal Computer (or 100% IBM compatible)
- Microsoft-Compatible Mouse (optional)

System Requirements
- Dos Version 3.0 or higher
- MHS 1.1 or 1.5

Network Operating System Requirements
- Must support shared files

Includes: NetWare (2.x and 386), LAN Manager, Banyan Vines, 10 Net, LanTastic, 3COM 3+ Share & 3+ Open, and many others.

Limitations
- Number of names per user directory: > 1,000,000 *
- Number of mailing lists: > 1,000,000 *
- Number of users on a mailing list: > 1,000,000 *
- Number of mail messages per server: > 1,000,000 *
  * Limitations may be affected by available disk space.

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DA VINCI eMAIL

Da Vinci eMAIL: Connecting the World.

A few years ago, "Connectivity" meant that your computer could talk to the computer next door. In the nineties, "Connectivity" means that your computer can talk to any other computer. Anywhere.

The Da Vinci goal is simple: if you have eMAIL, you should be able to exchange mail with anyone capable of receiving any kind of electronic mail. eMAIL brings this capability to your desktop as a strategic business tool; and like your telephone, one that enhances your people's productivity, not one that creates a technical hurdle.

Da Vinci eMAIL is a tool powerful and flexible enough to meet your needs today, and to grow with you and the technology of tomorrow. Its modular design allows for native support of different protocols and changing dispatcher technology. eMAIL's initial release supported a simple Drive Sharing environment. Now eMAIL also supports NetWare MHS, the messaging standard that Novell has supported since 1987. As new systems and standards evolve, eMAIL will adapt. And you can be confident that MHS will continue to grow; not because Da Vinci Systems says so, but because Novell and 70 other software developers all supporting the MHS standard, say so.

So what does all this mean to your business? Here are some of the options available to help you implement eMAIL as a strategic communications platform.

Local Area eMAIL

eMAIL provides messaging services on all the major LANs including Novell NetWare, 3Com 3+, Microsoft Lan Manager, Banyan Vines, PC-LAN, and more. With MHS, eMAIL can deliver messages between users on every server of your network.

Wide Area eMAIL

When your electronic mail needs extend beyond your network, MHS provides connectivity to any other MHS site, and gateways to other communications technologies and mail systems.

For instance, if you need X.25/X.400 connectivity, Da Vinci will be there with support for the X.400 APIA gateway specification. If you need SNA support, use a SNADS gateway; or use TCP/IP through an SMTP gateway.

Remote eMAIL

eMAIL enables your remote offices, stand-alone PCs, and even laptops to compose, read, and respond to messages any time. Then, with Remote MHS and a telephone, users can automatically exchange messages with the home office.

Other electronic mail systems

Not everyone uses Da Vinci eMAIL. Some people use ALL-In-One or VAXmail on a DEC VAX; DISOSS, PROFS, SYS-M, and others on an IBM mainframe; HP Desk on an HP 3000; MAIL (SMTP) on UNIX; Quick-Mail on a Macintosh; or WANG Office on a WANG computer (to name a few). Because MHS is a well-supported standard, products like J-Mail, Soft*Switch, and MHS/SMTP have been developed to link MHS with all these systems and more. With MHS, gateways to public mail systems such as MCI Mail, EasyLink, and Compuserve are also available.

High-Powered Groupware

The needs of your office may include calendering, scheduling, project management, or many other networked applications. Some vendors try to crowd all that into one program. With eMAIL and MHS, however, you can find the best of what you need. Programs like *SYZYGY* by Information Research (Workgroup Management), and *Network Scheduler II* by Powercore (Shared Calendering) can provide the best solutions for different needs. MHS and eMAIL can act as the "glue" that makes all your network applications work together seamlessly; including the ones that haven't been invented yet.
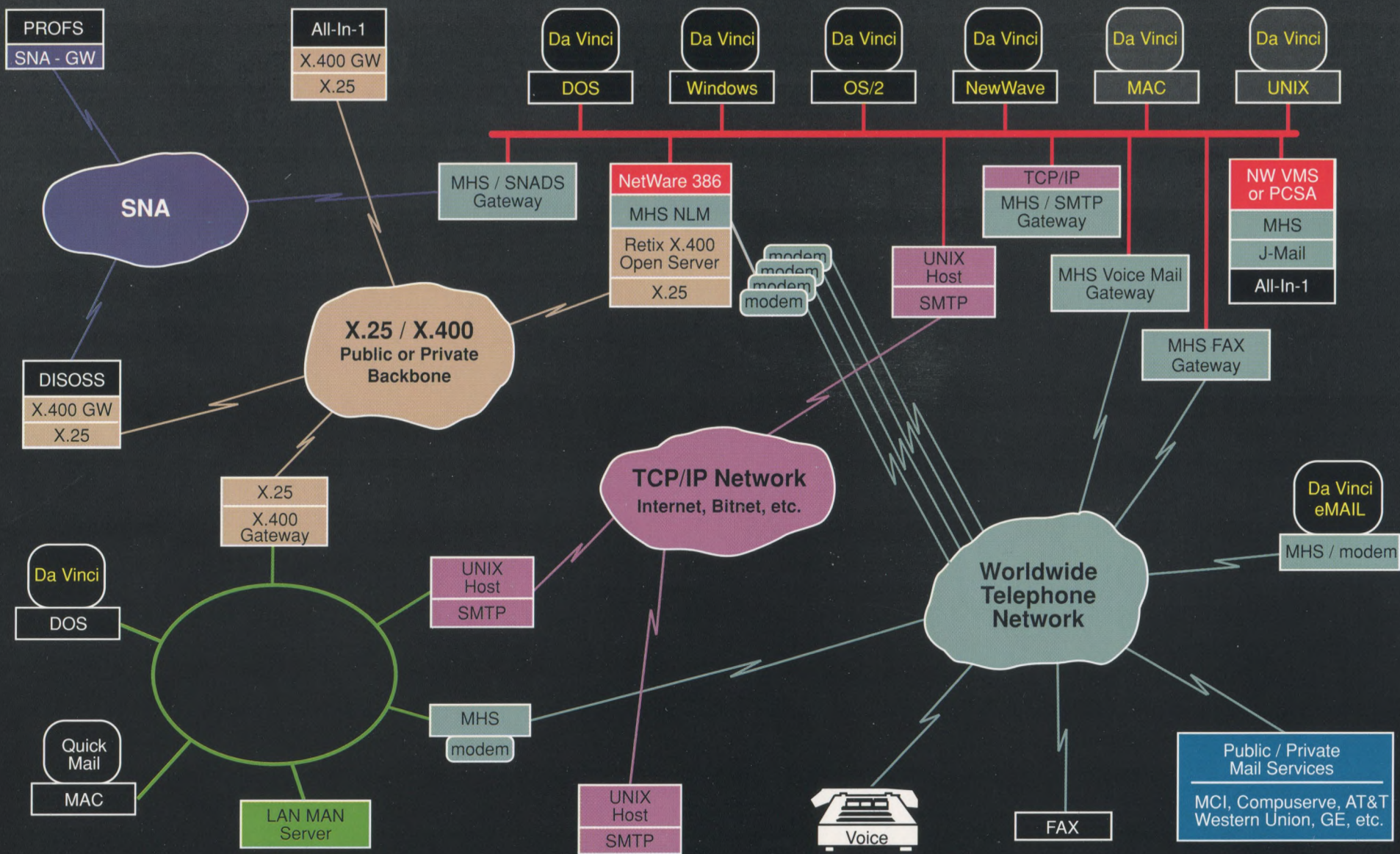
Alternate Delivery Methods

But suppose your recipient doesn't have electronic mail. Using gateways to other systems, Da Vinci eMAIL can extend the range of your communications far beyond microcomputers - by FAX, Telex, US Mail, or even spoken words over the telephone!

The bottom line is simple. One way or another, eMAIL gets you there.

DA VINCI eMAIL

DA VINCI eMAIL

PROFS
SNA - GW

All-In-1
X.400 GW
X.25

Da Vinci — DOS
Da Vinci — Windows
Da Vinci — OS/2
Da Vinci — NewWave
Da Vinci — MAC
Da Vinci — UNIX

SNA

MHS / SNADS Gateway

NetWare 386
MHS NLM
Retix X.400 Open Server
X.25

modem
modem
modem
modem

TCP/IP
MHS / SMTP Gateway

UNIX Host
SMTP

MHS Voice Mail Gateway

NW VMS or PCSA
MHS
J-Mail
All-In-1

DISOSS
X.400 GW
X.25

X.25 / X.400
Public or Private Backbone

MHS FAX Gateway

X.25
X.400 Gateway

TCP/IP Network
Internet, Bitnet, etc.

Da Vinci eMAIL
MHS / modem

Da Vinci — DOS

UNIX Host
SMTP

Worldwide Telephone Network

Quick Mail — MAC

MHS
modem

LAN MAN Server

UNIX Host
SMTP

Voice

FAX

Public / Private Mail Services
MCI, Compuserve, AT&T Western Union, GE, etc.

Worldwide Connectivity

RR70401-0 2\2\90

Da Vinci Names Services

Why Names Services?

Many organizations with local area networks have already discovered the benefits of Da Vinci eMAIL as a communications tool. Those with several MHS hosts (mail servers) or scattered networks, however, have had to deal with high administrative "overhead" when synchronizing lists of users and mail routes among MHS hosts. All updates (new users entering the network, moving to a different MHS host, or leaving the network) had to be manually changed on each host by a system administrator. Without some way to automate the synchronization process, the continual maintenance on a complex network can be over-whelming. Da Vinci Names Services is the solution to the "administrative overhead" problem.

The diagram below shows a typical Names Services installation:
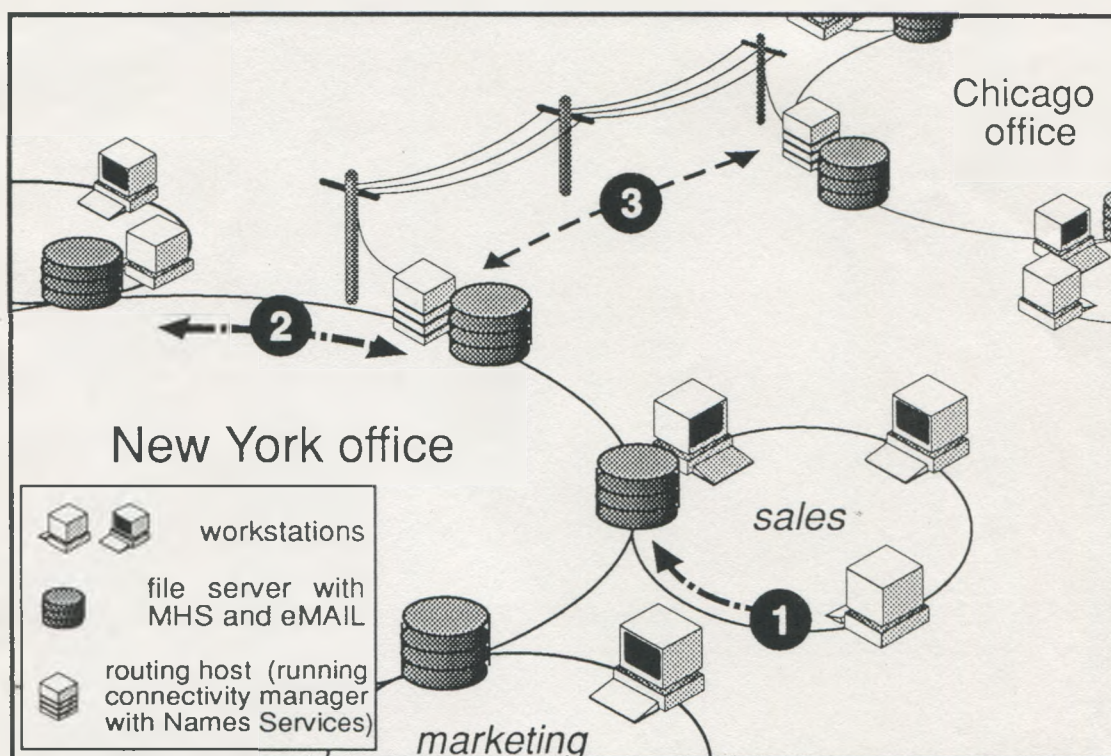
Names Services updates username lists between file servers (internet hosts) and with distant LANs (external hosts) via modem.

1–Whenever users are added to or removed from the LAN, the local file server updates its list of usernames.

2–In an "internet update," Names Services (running as a gateway at the routing host) periodically checks each file server for new or deleted users; it gathers a master list, then distributes a specific list of usermames and mail-routes to each server.

3–Names Services also periodically exchanges username lists with Names Services installed on other networks; each host adds the other's names and addresses to its master list and distributes them among its file servers.

An Overview of MHS Networks

The simplest MHS (Message Handling Service) situation is a single server that many users log into. In MHS terminology, this server is considered to be an MHS Host. The MHS installation contains a list of all the users at the host. If you send an eMAIL message to ANNE, eMAIL checks against the MHS User List to make sure that there is a user named ANNE; if so, your message is delivered to her. If ANNE is not on the user list, eMAIL informs you that it cannot deliver this message.

The situation becomes more complex when eMAIL is travelling between different hosts. For instance, your office might have three different servers, each of which acts as an MHS host; or, you might exchange eMAIL with other offices that have their own networks and their own MHS installations. Either way, you must be able to send a message that gets to Anne even if she is not defined on your host. Generally, you would send the message to HOSTNAME:ANNE so that the message reaches her by a two-step process. eMAIL simply confirms that HOSTNAME is a valid host, and does not worry about ANNE until the message reaches the other side; there, it can be checked against the appropriate user list and delivered to Anne.

Two-step routing is all well and good, but it can be tedious. It requires you to know what host each person uses, which may not be practical on a large network with many hosts. This problem is taken care of by the MHS User Routes. With User Routes, the MHS Administrator can declare that the name ANNE translates to the route HOSTNAME:ANNE (ANNE @ HOSTNAME in MHS syntax). Then a user can send a message to ANNE, and MHS will handle the routing automatically.

The automation can be carried one step further with the eMAIL Public Address Book. This file contains the list of names that eMAIL users see when they want to choose the recipients of a message. eMAIL automatically adds to your Public Address Book all the users who are declared on your host. However, you can manually add the users who are not declared on your host. This leads to the ultimate in multi-host automation: a situation in which the user does not have to know, in any way, what host Anne is on. He can send a message to ANNE by typing her name or by choosing it from a list. eMAIL delivers the message if ANNE is on the user's host, and MHS re-routes it if she isn't; all invisibly to the user. ANNE might even be a user on a completely different network, accessible only by modem!

However, this automation is achieved at the price of considerable administrative overhead. Consider: when you add ANNE to Novell or MHS, she is automatically added to the Public Address Book on her own host; but then you must add her as an MHS Route to every other host on your network. You must also add her to the Public Address Books of all these hosts. Finally, you must notify any external hosts that your network is in regular contact with, so that they can add ANNE with the appropriate route! It is this problem - the tedious administration required for automatic routing - that Names Services was created to solve.

What Names Services Does

The basic purpose of Names Services is to coordinate names and user routes between the different hosts on your network.

The actual synchronization program, also called the "engine," is designed to be run as an MHS gateway. (This is simply because the MHS Connectivity Manager runs its gateways periodically, so that you do not have to synchronize names manually.) When the program is run, it checks all the hosts on your network to see if any of their names lists have changed. If there is no change in the names lists, the program does nothing. If there is a change in any list, the program goes into action, updating the user routes of all the hosts with the new information.

In other words, Names Services takes the usernames from every host, and turns them into user routes on every other host. For instance, if there is a user named ANNE on the host HOSTNAME, Names Services will see to it that all the other hosts have ANNE in their Public Address Books, and that the MHS user route maps ANNE to ANNE @ HOSTNAME. However, no two users in that area can have the same eMAIL name.

The Names Services Host List

The above section describes a simple situation, in which Names Services coordinates all the names on your network. However, there may be MHS hosts on your network that you do not want involved in the collective routing; or, you may want to automatically exchange names with a host that is not on your internet.

To accommodate such options flexibly, the engine keeps a list of hosts to update. These hosts may be on your network (internet), or they may be on another network (external). Note that this is *not* the same as the host list that MHS keeps. MHS keeps a list of every host that you contact, internet or external (the MHS Directory Manager is the tool for managing this list). Some of those hosts will be on your Names Services host list; however, some of them may be left off the list, signifying that you do not wish to continually exchange names with them. Therefore, the host list used by Names Services is a subset of the MHS host list.

The tool for manipulating the Names Services host list is the NAMES user-interface program. By using that interface to control the host list, you can control which hosts you will synchronize names with.

This brings us to the fundamental question of this section: how do you decide whether to put a host in the Names Services host list? The answer is to decide whether you want to have a user route for every user on that host. In general, you will want to include every host on your internet , plus any external hosts whose users work closely with your users (e.g., users in other geographic locations of your business).

How Names Services Works

Names Services works in two entirely different ways: one for hosts on your internet and one for external hosts. Internet hosts are directly connected by your network. Therefore, the Names Services engine has direct access to their user lists, and can simply reach out and change their user routes.

External hosts cannot be changed directly in that way. Therefore, when you change your user list, the Names Services engine sends a special message containing your user routes to the external hosts on its list. No user ever sends or receives these messages; instead, the Names Services program on the other end receives them and creates the proper user routes from them.

In some large networks, there may be two or more routing hosts in the same internet. In this case, for the purposes of Names Services, they must treat each other as external hosts. Names Services must be set up to treat hosts consistent with their treatment in MHS.

A Word About Sending/Receiving

The rest of this document has discussed your host list as a list of hosts that you exchange names with. This is generally the case, but there may be exceptions. For instance, suppose that the people at your company

regularly send messages to all the people at Gamma Corporation; but for some reason, Gamma rarely returns your messages. You might want to add user routes to your system for all the users at Gamma, but not send Gamma all your names to become routes there.

It is possible to separate sending and receiving names in this way. You would declare Gamma as an external host that you receive names from, but do not send names to. Gamma would do the opposite, declaring you as a send only host.

This operation, like all other Names Services setup operations, is done from within the NAMES user-interface program.

A Powerful Tool Provides the Solution

Names Services is a powerful tool whose sole purpose is to make the administrator's task of names synchronization a simple process. A user-friendly interface, combined with on-line help and Da Vinci Systems' first-rate technical support, provides a winning combination to meet the demands of a busy administrator. If you want to avoid the tedious and time-consuming chore of manually changing names on each host, Names Services is the solution.

How to Purchase Names Services

Each copy of Da Vinci Names Services is licensed to support one MHS host. In a situation with multiple MHS hosts (internet hosts) on a single LAN or WAN, Names Services *runs* on each MHS Routing Host and is *licensed* according to the total number of internet hosts to be supported. To add support for additional internet hosts, simply order one additional Da Vinci Names Services product (Da Vinci part number NS001038) for each additional internet host you wish to support. Each time you install an additional Names Services product **on top** of your existing installation, the number of internet hosts you may support will increase by one. Simply remember to order one Names Services for each MHS host.

Product Description	Product Code
Da Vinci Names Services	NS001038

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